

## AMENDMENTS

### AMENDMENTS TO THE CLAIMS

1. (Withdrawn, Currently Amended) A method comprising a plurality of activities comprising:
  - providing a solution comprising water and a dispersion of solid particles comprising an internally substantially crosslinked polymer comprising at least one hydrophobic substituent and ~~at least one hydrophilic substituent~~ N-isopropyl acrylamide, wherein the polymer releases heat over a range of dropping ambient temperatures beginning at about 4.4 degrees C; and
  - coating at least a portion of a surface of a plant with the solution.
2. – 14. (Canceled)
15. (Withdrawn) The method of claim 1, wherein the particles are nanoparticles.
16. (Withdrawn) The method of claim 1, wherein each of the particles has a molecular weight of from about 500,000 to about 50,000,000.
17. (Withdrawn) The method of claim 1, wherein the particles have an average diameter of from about 2 nanometers to about 1000 nanometers.
18. – 66. (Canceled)
67. (Withdrawn, Currently Amended) A method comprising a plurality of activities comprising:
  - providing a solution comprising water and a dispersion of solid particles comprising an internally substantially crosslinked polymer comprising at least one hydrophobic substituent and ~~at least one hydrophilic substituent~~ N-isopropyl

acrylamide, wherein the polymer releases heat over a range of dropping ambient temperatures beginning at about 4.4 degrees C;

coating at least a portion of a surface with the solution; and  
preventing the formation of ice on the surface.

68. (Withdrawn, Currently Amended) A method comprising a plurality of activities comprising:

polymerizing ~~the~~ at least one hydrophobic substituent and N-isopropyl acrylamide ~~at least one hydrophilic substituent~~ to form solid nanoparticles having an average diameter of from about 11 nanometers to about 450 nanometers, the nanoparticles comprising a an internally substantially crosslinked polymer comprising the at least one hydrophobic substituent and the N-isopropyl acrylamide, wherein the polymer releases heat over a range of dropping ambient temperatures beginning at 4.4 degrees C ~~the at least one hydrophilic substituent;~~ and  
forming a solution comprising water and a dispersion of the solid nanoparticles.

69. (Currently Amended) A composition comprising:

an aqueous solution comprising a dispersion of solid particles comprising an internally substantially crosslinked polymer comprising at least one hydrophobic substituent and the N-isopropyl acrylamide, wherein the polymer releases heat over a range of dropping ambient temperatures beginning at 4.4 degrees C ~~at least one hydrophilic substituent.~~

70. (Withdrawn, Currently Amended) A composition comprising:

water droplets comprising a dispersion of solid particles comprising an internally substantially crosslinked polymer comprising at least one hydrophobic substituent and the N-isopropyl acrylamide, wherein the polymer releases heat over a range of dropping ambient temperatures beginning at 4.4 degrees C ~~at least one hydrophilic substituent.~~

71. (Currently Amended) The composition of claim 69, wherein the ~~copolymer~~ polymer releases heat over a range of dropping ambient temperatures ending at about -3.89 degrees C beginning at about 40 degrees F.
72. (Previously Presented) The composition of claim 69, wherein the hydrophilic monomer is water soluble.
73. (Canceled)
74. (Previously Presented) The composition of claim 69, wherein the particles are nanoparticles.
75. (Previously Presented) The composition of claim 69, wherein each of the particles has a molecular weight of from about 500,000 to about 50,000,000.
76. (Currently Amended) The composition of claim 69, wherein the particles have an average diameter of from about 2 ~~microns~~ nanometers to about 1000 ~~microns~~ nanometers.
77. – 81. (Canceled)
82. (Previously Presented) The composition of claim 69, wherein the particles have an average diameter of less than about 200 microns.
83. (Withdrawn) The composition of claim 70, wherein the water droplets are coated with a hydrated polymer gel.
84. (Withdrawn) The composition of claim 70, wherein the water droplets are coated with a hydrated polymer gel that, when applied to at least a portion of a surface of a plant,

releases heat over a range of dropping ambient temperatures beginning at about 35 degrees F.

- 85. (Withdrawn, Currently Amended) A composition comprising:  
a foam comprising an aqueous solution comprising a dispersion of solid particles comprising an internally substantially crosslinked polymer comprising at least one hydrophobic substituent and the N-isopropyl acrylamide, wherein the polymer releases heat over a range of dropping ambient temperatures beginning at 4.4 degrees C at least one hydrophilic substituent.
- 86. (Withdrawn) The composition of claim 85, wherein the foam comprises a hydrated polymer gel.
- 87. (Withdrawn) The composition of claim 85, wherein the foam comprises air bubbles.
- 88. (Withdrawn) The composition of claim 85, wherein the foam comprises air bubbles having a diameter in the range of from about 10 microns to about 100 microns.